THE CLAIMS

What is claimed is:

1. A door comprising a tempered glass panel of a predetermined peripheral configuration defined by a substantially continuous peripheral edge, said panel further including opposite inner and outer surfaces bridged by said peripheral edge, a peripheral portion of said glass panel being defined by said peripheral edge and immediately adjacent surface portions of said opposite inner and outer surfaces, an open frame-like encapsulation of one-piece injection molded polymeric/copolymeric synthetic plastic material, said open frame-like encapsulation including an outer peripheral portion and an inner peripheral portion, said frame-like inner peripheral portion entirely encapsulating said glass panel peripheral portion including said peripheral edge and said immediately adjacent surface portions of said opposite inner and outer surfaces, said frame-like encapsulation further including inner and outer surfaces defining therebetween respective inner and outer surface configurations of the frame-like encapsulation and the wall thicknesses thereof, said frame-like encapsulation inner surface configuration being stepped at said frame-like inner peripheral portion and defining thereat a relatively thicker wall thickness than the wall thickness at said frame-like encapsulation outer peripheral portion, and said frame-like outer surface configuration defining a substantially continuous unstepped outer surface whereby only an inner surface of the door includes unaesthetic injection-molding characteristics.

2. The door as defined in claim 1 wherein said polymeric/copolymeric synthetic plastic material is an acrylonitrile/styrene/acrylate polymer blended with mica glass beads at a ratio of substantially 70% to 3-% to 90% to 10% by weight.

3. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion includes a depending front wall, a first portion of said front wall is recessed inwardly toward said frame-like encapsulation inner peripheral portion to define an outwardly opening area, and a wall portion of said frame-like encapsulation outer peripheral portion is in overlying spanning relationship to said outwardly opening area to define therewith a hand grip area for facilitating the opening and closing of the door.

4. The door as defined in claim 1 including means for supporting an actuator adjacent the inner surface of the frame-like outer peripheral portion.

5. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion includes relatively spaced front corner portions, and each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface.

6. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface, and at least one of said flanges is directed toward said rear outer peripheral portion.

7. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portions inner surface, and at least one of said flanges is directed toward one of said opposite spaced side outer peripheral portions.

8. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface, at least one of said flanges is directed toward said rear outer peripheral portion, and the other of said flanges is directed toward one of said opposite spaced side outer peripheral portions.

9. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall, and means defined by said depending corner-defining wall for accommodating a fastener to secure a door component to the door.

10. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall at opposite rear corners of said open frame-like encapsulation, and means defined by each of said corner -defining walls for accommodating a fastener to secure a door hinge to the door.

11. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall at opposite rear corners of said open frame-like encapsulation, and means defined by each of said corner-defining walls for accommodating a door hinge.

12. The door as defined in claim 1 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall at opposite rear corners of said open frame-like encapsulation, and opening means defined by each of said corner-defining walls for accommodating a door hinge.

13. The door as defined in claim 3 including means for supporting an actuator adjacent the inner surface of the frame-like outer peripheral portion.

14. The door as defined in claim 3 wherein said frame-like encapsulation outer peripheral portion includes relatively spaced front corner portions, and each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface.

15. The door as defined in claim 3 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface, and at least one of said flanges is directed toward said rear outer peripheral portion.

16. The door as defined in claim 3 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portions inner surface, and at least one of said flanges is directed toward one of said opposite spaced side outer peripheral portions.

17. The door as defined in claim 3 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall, and means defined by said depending corner-defining wall for accommodating a fastener to secure a door component to the door.

18. The door as defined in claim 3 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall at opposite rear corners of open frame-like encapsulation, and means defined by each of said corner-defining walls for accommodating a door hinge.

19. The door as defined in claim 18 wherein said frame-like encapsulation outer peripheral portion includes relatively spaced front corner portions, and each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface.

20. A door comprising a tempered glass panel of a predetermined peripheral configuration defined by a substantially continuous peripheral edge, said panel further including opposite inner and outer surfaces bridged by said peripheral edge, a peripheral portion of said glass panel being defined by said peripheral edge and immediately adjacent surface portions of said opposite inner and outer surfaces, an open frame-like encapsulation of one-piece injection molded polymeric/copolymeric synthetic plastic material, said open frame-like encapsulation including an outer peripheral portion and an inner peripheral portion, said frame-like inner peripheral portion entirely encapsulating said glass panel peripheral portion including said peripheral edge and said immediately adjacent surface portions of said opposite inner and outer surfaces, said frame-like encapsulation outer peripheral portion including a depending front wall, a first portion of said front wall being recessed inwardly toward said frame-like encapsulation inner peripheral portion to define an outwardly opening area, and a wall portion of said frame-like encapsulation outer peripheral portion being in overlying spanning relationship to said outwardly opening area to define therewith a hand grip area for facilitating the opening and closing of the door.

21. The door as defined in claim 20 including means for supporting an actuator adjacent the inner surface of the frame-like outer peripheral portion.

22. The door as defined in claim 20 wherein said frame-like encapsulation outer peripheral portion includes relatively spaced front corner portions, and each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface.

23. The door as defined in claim 20 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface, and at least one of said flanges is directed toward said rear outer peripheral portion.

24. The door as defined in claim 20 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portions inner surface, and at least one of said flanges is directed toward one of said opposite spaced side outer peripheral portions.

25. The door as defined in claim 20 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface, at least one of said flanges is directed toward said rear outer peripheral portion, and the other of said flanges is directed toward one of said opposite spaced side outer peripheral portions.

26. The door as defined in claim 20 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall, and means defined by said depending corner-defining wall for accommodating a fastener to secure a door component to the door.

27. The door as defined in claim 20 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall at opposite rear corners of said open frame-like encapsulation, and means defined by each of said corner-defining walls for accommodating a fastener to secure a door hinge to the door.

28. The door as defined in claim 20 wherein said frame-like encapsulation outer peripheral portion includes a depending corner-defining wall at opposite rear corners of said open frame-like encapsulation, and means defined by each of said corner -dèfining walls for accommodating a door hinge.

29. The door as defined in claim 28 wherein said frame-like encapsulation outer peripheral portion is defined by a front outer peripheral portion spaced from a rear outer peripheral portion and opposite spaced side outer peripheral portions therebetween, said front and rear outer peripheral portions merge with said side outer peripheral portions to define respective opposite front corners and opposite rear corners of the door, each of said front corner portions includes an inwardly directed flange disposed in spaced relationship to said frame-like encapsulation outer peripheral portion inner surface, and at least one of said flanges is directed toward said rear outer peripheral portion.

30. A door comprising a tempered glass panel of a predetermined peripheral configuration defined by a substantially continuous peripheral edge, said panel further including opposite inner and outer surfaces bridged by said peripheral edge, a peripheral portion of said glass panel being defined by said peripheral edge and immediately adjacent surface portions of said opposite inner and outer surfaces, an open frame-like encapsulation of one-piece injection molded polymeric/copolymeric synthetic plastic material, said open frame-like encapsulation including an outer peripheral portion and an inner peripheral portion, said frame-like inner peripheral portion entirely encapsulating said glass panel peripheral portion including said peripheral edge and said immediately adjacent surface portions of said opposite inner and outer surfaces, said frame-like encapsulation further including inner and outer surfaces defining therebetween respective inner and outer surface configurations of the frame-like encapsulation and the wall thicknesses thereof, said frame-like encapsulation further including opposite corner portions, each corner portion including an opening, a hinge associated with each corner portion for hingingly connecting the door to an associated structural opening, each hinge including a pintle portion and a mounting portion, each pintle portion projecting through a corner opening, each mounting portion being disposed contiguous said outer peripheral portion inner surface, and means for fastening each mounting portion to said outer peripheral portion.

31. The door as defined in claim 30 wherein each hinge is of a substantially L-shaped configuration.

32. The door as defined in claim 30 wherein each corner portion opening is an elongated slot.

33. The door as defined in claim 30 wherein each corner portion opening is an elongated slot formed in a radius of each corner portion.

34. The door as defined in claim 30 including a pair of supporting bosses disposed in spaced relationship to each other adjacent each corner portion, each mounting portion being in supporting contacting relationship with a pair of said supporting bosses, and said fastening means fasten each mounting portion against a pair of said supporting bosses.

35. The door as defined in claim 32 including a pair of supporting bosses disposed in spaced relationship to each other adjacent each corner portion, each mounting portion being in supporting contacting relationship with a pair of said supporting bosses, and said fastening means fasten each mounting portion against a pair of said supporting bosses.

36. The door as defined in claim 33 including a pair of supporting bosses disposed in spaced relationship to each other adjacent each corner portion, each mounting portion being in supporting contacting relationship with a pair of said supporting bosses, and said fastening means fasten each mounting portion against a pair of said supporting bosses.

37. The door as defined in claim 34 wherein each mounting portion includes a flat surface contacting a supporting boss.

38. The door as defined in claim 37 wherein each corner portion opening is an elongated slot.

39. The door as defined in claim 37 wherein each corner portion opening is an elongated slot formed in a radius of each corner portion.

40. A door comprising a tempered glass panel of a predetermined peripheral configuration defined by a substantially continuous peripheral edge, said panel further including opposite inner and outer surfaces bridged by said peripheral edge, a peripheral portion of said glass panel being defined by said peripheral edge and immediately adjacent surface portions of said opposite inner and outer surfaces, an open frame-like encapsulation of one-piece injection molded polymeric/copolymeric synthetic plastic material, said open frame-like encapsulation including an outer peripheral portion and an inner peripheral portion, said frame-like inner peripheral portion entirely encapsulating said glass panel peripheral portion including said peripheral edge and said immediately adjacent surface portions of said opposite inner and outer surfaces, said frame-like encapsulation further including inner and outer surfaces defining therebetween respective inner and outer surface configurations of the frame-like encapsulation and the wall thicknesses thereof, said frame-like outer peripheral portion defining a depending peripheral skirt opening in a direction away from an annular top wall of said frame-like encapsulation, a switch actuator supported against said top wall, and fastener means for securing said switch actuator against said top wall.

41. The door as defined in claim 40 wherein said annular top wall includes means for reinforcing said annular top wall at said switch actuator.

42. The door as defined in claim 41 wherein said reinforcing means are a plurality of ribs.

43. The door as defined in claim 40 wherein said reinforcing means are a plurality of ribs against which rests said switch actuator.

44. The door as defined in claim 40 wherein said fastener means include at least one fastener passed through an opening of said depending peripheral skirt.

45. The door as defined in claim 40 wherein said fastener means include at least one fastener passed through an opening of said depending peripheral skirt and secured to said switch actuator.

46. The door as defined in claim 41 wherein said reinforcing means are a plurality of substantially parallel spaced ribs.

47. The door as defined in claim 43 wherein said fastener means include at least one fastener passed through an opening of said depending peripheral skirt.

48. A door comprising a tempered glass panel of a predetermined peripheral configuration defined by a substantially continuous peripheral edge, said panel further including opposite inner and outer surfaces bridged by said peripheral edge, a peripheral portion of said glass panel being defined by said peripheral edge and immediately adjacent surface portions of said opposite inner and outer surfaces, an open frame-like encapsulation of one-piece injection molded polymeric/copolymeric synthetic plastic material, said open frame-like encapsulation including an outer peripheral portion and an inner peripheral portion, said frame-like inner peripheral portion substantially entirely encapsulating said glass panel peripheral portion including said peripheral edge and said immediately adjacent surface portions of said opposite inner and outer surfaces, and said polymeric/copolymeric synthetic plastic material is an acrylonitrile/styrene/acrylate polymer blended with mica glass beads.

49. The door as defined in claim 48 wherein the polymer and the mica glass beads are blended at a ratio of in the range of substantially 70% to 30% to 90% to 10% by weight.

50. The door as defined in claim 48 wherein the polymer and the mica glass beads are blended at a ratio of in the range of substantially 80% to 20% by weight.